

Amendment and Response under 37 CFR 1.116

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Applicant(s): SMITH et al.

Group Art Unit: 1646

Serial No.: 09/813,345

Filed: 20 March 2001

For: METHODS FOR INHIBITING CGRP BINDING (as previously amended)

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the above-identified application:

1-20. canceled

~~2~~ 21. (previously presented) The method of Claim ~~29~~¹ wherein the CGRP receptor is on a cell.

~~7~~ 22. (previously presented) The method of Claim ~~29~~¹ wherein the CGRP receptor is cell free.

~~3~~ 23. (original) The method of Claim ~~21~~² wherein the cell is in culture.

~~4~~ 24. (original) The method of Claim ~~21~~² wherein the cell is part of a tissue.

~~5~~ 25. (original) The method of Claim ~~21~~² wherein the cell is in an animal.

~~16~~ 26. (original) The method of Claim ~~25~~⁵ wherein the animal is a human.

27-28. canceled

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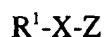
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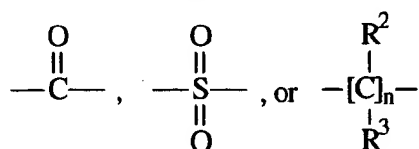
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For: METHODS FOR INHIBITING CGRP BINDING (as previously amended)

- ¹ 29. (previously presented) A method for inhibiting CGRP binding to one or more CGRP receptors comprising contacting a CGRP receptor with a composition comprising a peptide having the general formula:



wherein Z is a CGRP receptor-binding peptide, R¹ is an organic group, X is



and wherein R² and R³ are independently H or an organic group and n is a whole integer between 1 and 10;

in an amount effective to inhibit CGRP binding to one or more CGRP receptors.

- ⁸ 30. (original) The method of Claim ¹29 wherein Z is a peptide fragment of at least 15 amino acids from CGRP.
- ⁹ 31. (original) The method of Claim ⁸30 wherein Z comprises the amino acid sequence of SEQ ID NO:1 or SEQ ID NO:2.
- ¹⁰ 32. (previously presented) The method of Claim ¹29 wherein Z is an antagonist of human CGRP.
- ¹¹ 33. (previously presented) The method of Claim ¹29 wherein Z is an antagonist of α-CGRP or β-CGRP.

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- 12 34. (currently amended) The method of Claim ¹¹~~33~~ wherein Z comprises the an amino acid sequence selected from the group consisting of SEQ ID NOS:6-17 and 23.
- 13 35. (currently amended) The method of Claim ¹¹~~33~~ wherein Z comprises the an amino acid sequence selected from the group consisting of SEQ ID NOS:18-22.
- 14 36. (original) The method of claim ¹~~29~~ wherein Z is a CGRP antagonist peptide fragment selected from the group consisting of amylin, CGRP and adrenomedullin.
- 15 37. (original) The method of Claim ¹⁶~~29~~ wherein R¹ is an aromatic group, a heterocyclic group or an alkyl group and R² and R³ are independently H, an aromatic group or an alkyl group.
- 16 38. (original) The method of Claim ¹⁵~~37~~ wherein R¹ is a C1-C4 alkyl group.
- 17 39. (original) The method of Claim ¹⁶~~38~~ wherein R¹ is a fluoroalkyl.
- 18 40. (original) The method of Claim ¹⁶~~38~~ wherein R² and R³ are independently H, a C1-C4 alkyl group or a phenyl moiety.
- 19 41. (original) The method of Claim ¹⁶~~38~~ wherein R¹ is a C5-C10 aromatic group, a C5-C9 heterocyclic group or a C1-C4 alkyl group.
- 20 42. (original) The method of Claim ¹⁹~~41~~ wherein R² and R³ are independently H or a C5-C10 aromatic group or a C1-C4 alkyl group.
- 21 43. (original) The method of Claim ¹⁵~~37~~ wherein R¹ has the general formula:

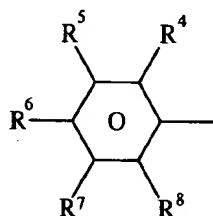
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and wherein R^4 - R^8 are each independently selected from the group of H, fluoro, chloro, bromo, iodo, nitro, nitrile (cyano), amino, N-methyl amino, N,N-dimethyl amino, hydroxy, methoxy, thiomethoxy (S-methyl), methyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, trifluoromethyl, trifluoromethoxy, vinyl, acetamido, phenyl, toluyl, and methoxyphenyl.

2244. (original) The method of Claim ~~43~~²¹ wherein R^6 is trifluoromethyl and R^4 , R^5 , R^7 and R^8 are F.

2445. (previously presented) The method of Claim ~~37~~¹⁵ wherein R^1 is



and wherein Y is selected from the group consisting of O, NH, and S.

2346. (previously presented) The method of Claim ~~43~~²¹ wherein the peptide is a CGRP antagonist having at least 15 consecutive amino acids selected from a protein from the group consisting of N- α -benzoyl- α -CGRP, N- α -benzyl- β -CGRP, N- α -benzoyl- β -CGRP and N- α -benzyl- α CGRP, dibenzyl-h- α -CGRP and dibenzyl-h- β -CGRP.

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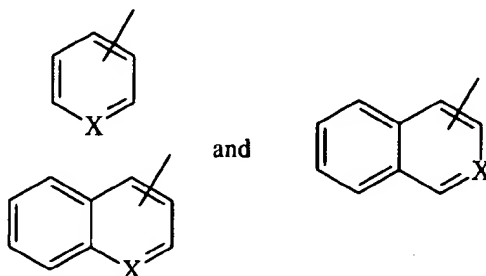
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~~25~~¹⁵47 (original) The method of Claim ~~37~~¹⁵ wherein R¹ is selected from the group consisting of:



and wherein X is selected from the group consisting of C and N.

48-53. canceled

~~26~~⁵⁴ (previously presented) The method of claim ~~29~~⁵⁴ wherein Z is a vasoactive peptide.

~~27~~⁵⁵ (previously presented) The method of claim ~~54~~⁵⁶ wherein Z is an antagonist of human CGRP.